

# Atlas Materia: Fieldwork Experience in the Material City

## Atlas Materia: Experiencia de trabajo de campo en la ciudad material

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### Abstract

Today, architecture is primarily consumed through interfaces like Instagram, on-line journals, websites, video games and print publications. This is in part due to the fixed geographical position of architecture. Images allow architecture to be distributed to a broader audience. However, images also represent a problematic disembodiment of the built environment. The complicated relationship between architecture and its image is explored in the first section of this paper, Mnemosyne Field through an interrogation of Aby Warburg's Mnemosyne Atlas. The second section of this paper, Atlas Materia investigates material qualities as conveyors of architectural identity through fieldwork. The material adjacencies and observational imperfections of fieldwork result in an equivocal architectural experience that takes place at the intersection of a city's physical qualities and the phenomenological response they produce. This paper describes the pedagogical outcome of sensorial mapping strategies that provided a visual and tactile representation of the city of Buffalo, New York. Based on the experience of material properties, the ultimate objective of Atlas Materia is to help establish a link between phenomenology of perception and urban spaces through a material-centered strategy.

### Keywords

Mnemosyne Atlas, Atlas materia, phenomenology of perception, visual representation

### Resumen

La arquitectura actual es consumida principalmente por medio de interfaces tales como Instagram, revistas online, sitios web, videojuegos y publicaciones en papel. Esto es debido en parte a la posición geográfica fija de la arquitectura. Las imágenes permiten que la arquitectura sea distribuida a audiencias más amplias. Sin embargo, las imágenes representan también una desconexión problemática con el medio construido. La compleja relación entre la arquitectura y su imagen se explora en la primera parte del presente texto, Mnemosyne Field, mediante una incursión en el Atlas Mnemosyne de Aby Warburg. La segunda sección, Atlas Materia, investiga las cualidades materiales como vehículos de identidad arquitectónica en trabajos de campo. Las adyacencias materiales y las imperfecciones observables en los estudios in situ desembocan en una experiencia arquitectónica equívoca que tiene lugar en la intersección de las cualidades físicas de la ciudad y las respuestas fenomenológicas que éstas producen. El presente texto describe los resultados pedagógicos de unas estrategias de mapas sensoriales que proporcionaron una representación visual y táctil de la ciudad de Buffalo, Nueva York. Basándose en la experiencia de las propiedades materiales, el objetivo último de Atlas Materia es contribuir al establecimiento de vínculos entre la fenomenología de la percepción y los espacios urbanos mediante una estrategia centrada en lo material.

### Palabras clave

Mnemosyne Atlas, Atlas materia, fenomenología de la percepción, representación visual

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- 1 While the actual panels of the last version no longer exist, some of the black-and-white photographs are still archived at the Warburg Institute in London. In 2000, a very complete version of the project was put together in a publication by Martin Warnke. See: Warnke, Martin: *Der Bilderatlas: Mnemosyne* in Warburg's *Gesammelte Schriften*, II.1 (Berlin: Akademie Verlag, 2000).
- 2 "The Warburg Institute, which is a constituent institute of the School of Advanced Study, University of London, is the premier institute for the study of cultural history and the role of images in culture. It is dedicated to the history of ideas, the dissemination and transformation of images in society, and the relationship between images, art, and their texts and subtexts, of all epochs and across the globe." From: [www.warburg.sas.ac.uk](http://www.warburg.sas.ac.uk) (accessed April, 2021).
- 3 Gombrich, E. H., *Aby Warburg: An Intellectual Biography* (Chicago: The University of Chicago Press, 1986).
- 4 "Begun in 1924 and left unfinished at the time of his death in 1929, the *Mnemosyne Atlas* is Aby Warburg's attempt to map the 'afterlife of antiquity,' or how images of great symbolic, intellectual, and emotional power emerge in Western antiquity and then reappear and are reanimated in the art and cosmology of later times and places, from Alexandrian Greece to Weimar Germany. Focusing especially on the Renaissance, the historical period where he found the struggle between the forces of reason and unreason to be most palpable, Warburg hoped that the *Mnemosyne Atlas* would allow its spectators to experience for themselves the 'polarities' that riddle culture and thought." <https://warburg.library.cornell.edu/about> (accessed April 2021). See also: Kalkstein, Molly, "Aby Warburg's *Mnemosyne Atlas*: On Photography, Archives, and the Afterlife of Images," *Rutgers Art Review* Vol. 35 (New Brunswick, NJ: Rutgers School of Arts and Sciences, 2019); Warburg, Aby, *Mnemosyne. Grundbegriffe, II* (2 July 1929) (London: Warburg Institute Archive, III.102.3-4), 3; Didi-Huberman, Georges, *L'Image survivante. Histoire de l'art et*

## Mnemosyne Field

"Active perception is what you create out of what you see. It makes you become conscious and critical... Your perception is more important than the object being perceived – more important than any specific building."

Jacques Herzog

Aby Warburg (1866-1929), the German art historian and cultural theorist who studied forms of representation of the classical world, started his ambitious *Mnemosyne Atlas* project in 1924. His *Atlas* was initially composed of around two hundred wooden panels – although only forty of them remain – covered with black cloth onto which nearly a thousand images from books, magazines, newspapers, and various other sources were attached. The images were arranged around fourteen major themes, such as astrology, mythology, and archaeology, depicting ways in which the classical tradition was represented in the twentieth century. With barely any text accompanying the images, *Mnemosyne Atlas* was left unfinished when Warburg died in 1929.<sup>1</sup>

Austrian-British art historian Ernst Gombrich (1909-2001), the fourth director of the Warburg Institute<sup>2</sup> between 1959 and 1976, wrote that, "Warburg certainly hoped that the beholder would respond with the same intensity to the images of passion or of suffering, of mental confusion or of serenity, as he had done in his work."<sup>3</sup> Two major decisions led to the construction of the viewer's response: first, the careful selection of the black-and-white images; second, the image arrangement within the categories on the black cloth backgrounds. These two frameworks conditioned the work that Warburg proposed as a visual display where specific readings of classical culture could take place at multiple levels. Warburg's arrangement – processed after subjective and objective choices – constructed an imagery map that remained open to individual interpretations. Warburg had hoped that his work would allow its spectators to experience for themselves the "polarities' that riddle culture and thought."<sup>4</sup> (figure 1)

Warburg's *Atlas* organized the images as an intuitively-derived field condition, where the relations and hierarchies among them followed patterns that were not always evident or literal.<sup>5</sup> The multiple photographs were arranged by affinities – sometimes thematic, visual or other – on a black background that was conceived as an endless frame. The author formed his own subjective interpretation, and, in shaping such a field condition with the selected images, he created a coded field for other interpretations as well. If the *Atlas* is the result of *fieldwork*, then that



Figure 1. *Mnemosyne Atlas* (1924-1929). Aby Warburg. Photo: courtesy of Cornell University Library / The Warburg Institute, London.

*temps des fantômes selon Aby Warburg* (Paris: Les Éditions de Minuit, 2002); Didi-Huberman, Georges, *Atlas. How to Carry the World on One's Back?* (Madrid: Museo Nacional Centro de Arte Reina Sofía, 2010); Didi-Huberman, Georges, *Atlas ou le gai savoir inquiet. L'œil de l'histoire*, (Paris: Les Éditions de Minuit, 2011), 3.

- 5 Stan Allen writes: "[A] field condition could be any formal or spatial matrix capable of unifying diverse elements while respecting the identity of each. [ . . . ] Interval, repetition, and seriality are key concepts. Form matters, but not so much the forms of things as the forms between things." Allen, Stan, "Field Conditions, *Points and Lines Diagrams and Projects for the City* (New York, Princeton Architectural Press, 1985).
- 6 Edmund Husserl wrote: "[The scientific investigator of nature] observes and experiments; that is, he ascertains. Factual existence according to experience; for him experiencing is a grounding act which can never be substituted by a mere imaging. And this is precisely why science of matter of fact and experimental science are equivalent concepts. But for the geometer, who explores not actualities but ideal possibilities: not predicatively formed actuality-complexes, but predicatively formed eidetic affair-complexes, the ultimately grounding act is not experience but rather the seeing of essences." Edmund Husserl, *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*, Vol. II (translation F. Kersten) (The Hague: Nijhoff, 1982), 16.
- 7 As put by David Leatherbarrow, "Cities and buildings are not only spatial, geometric, and dimensional patterns, but also *material*." And he asks: "Might the material aspects of cities and architecture clarify their relationships to one another?" David Leatherbarrow, "Materials Matter," *Architecture Oriented Otherwise* (New York: Princeton University Press, 2009), 73.
- 8 Jacques Derrida, "Différance," *A Derrida Reader. Between the Blinds*, (Peggy Kamuf, ed.) (New York: Columbia University Press, 1991), 61-79. Translated by Alan Bass.
- 9 Aligned with these questions, Jorge Otero-Pailos cites Hans-Georg Gadamer (1900-2002): "[For Gadamer] one's cultural tradition [ . . . ] was not external to the experience but an intrinsic part of the person experiencing and how he or she understood. Whatever truth was revealed in the experience [of art] appeared in and through one's own tradition and its prejudices, so that truth always involved a simultaneous revealing and concealing that was historically contingent. Further complicating matters, experiencing an artwork, say an ancient sculpture, sometimes also involved confronting another historical tradition, that of the artwork's original moment of production. The experience of art therefore entailed a sort of confrontation of two traditions or horizons of understanding. One's own tradition and prejudices provided the basis allowing us to begin trying to relate to what is both familiar and strange in the artwork." Jorge Otero-Pailos, *Architecture's Historical Turn. Phenomenology and the Rise of the Postmodern* (Minneapolis, MN: University of Minnesota Press, 2010), 21.

work is situated in the media ecologies that Warburg explores – the images that function as both his datum and his primary interpretive means. Understood this way, the *Atlas* functions epistemologically (or archaeologically, as the term is used by Foucault), as an investigation into means of representation, and what these means reveal about our relationship with the classical world. Thus, Warburg's research is removed from the sites from which the content of his *Atlas* is ultimately derived; he was able to choose images and their contextual position within the *Atlas*, but could not, for example, choose one vantage point over another, or one time and light of the day over another. The content of the *Atlas* was not produced by Warburg, nor found directly outside in a physical context; rather, Warburg sourced them from a world of mediated imagery: clippings that he found in books, newspapers, and journals.<sup>6</sup>

While the interpretation of fieldwork provided above is rather broad and inclusive, traditional fieldwork operates within phenomenological space/time. It involves physical interaction with a specific context involving all of the sensorial modalities, and as such cannot occur when the exploration is disengaged from its site, or sensorially mediated through artifacts that are themselves interpretive.<sup>7</sup> Warburg defined objective and subjective exploratory parameters that situated his research and interpretation within the abstract epistemological limits of media ecologies that refer to a site that is necessarily always absent, a condition described by Derrida as "semiological *différance*."<sup>8</sup> As imbricated within systems of signification, one must ask: how did this abstraction determine Warburg's associative choices? How would the *Mnemosyne Atlas* have read had Warburg himself taken the photographs he used in the composition over an extended period of on-site fieldwork, say, through years of travel? How might the direct physical experience of fieldwork have contributed to Warburg's own interpretation of the classical world and subsequent interpretations of *Atlas* by others? and, lastly, how would meaning have been constructed out of the intuitions of multiple authors instead of only one? *Mnemosyne Atlas* would have been a significantly different work had Warburg taken the photographs directly through site visits and not from books, journals, and newspapers.<sup>9</sup> The mediation of the physical engagement and the incorporation of phenomenological considerations would probably have suggested a different proposal.<sup>10</sup>

While it is important to respect Warburg's scope, which is focused on how representations of the classical world are informed by and can inform contemporary cultural currents, it is equally relevant to interrogate his method. By relying entirely on the image cultures of his time, Warburg effectively replaces the referent with its image. In Warburg's *Atlas*, images become self-referential, separated from the sites of their origin. Such removal frustrates any theoretical comparison between referent and representation. Warburg's critique remains, therefore, incomplete.

By contrast, Warburg's contemporary, Georg Simmel (1858-1918) emphasized the importance of bodily perception to fieldwork. Italian researcher Mariselda Tessarolo argues that Simmel's insistence on embodied fieldwork derives from his consideration of relationships as *Wechselwirkung* (interaction and reciprocity):

The world belongs to us through the body, and we belong to the world, we are in this world, through the body. The sense of this relationship of reciprocal inherence has always been shaped and re-shaped according to a cultural matrix that we acquire the moment we learn to see, communicate, talk, live our body as a relationship with others and with the world humanized by the culture in which we were born. That does not stop the sensitive depth of the world lived through our body inherence,

which is the only one of our experienced certainties, to be the matter that will be conformed, shaped, stylized, modeled by culture, or denied by barbarianism.<sup>11</sup>

Simmel emphasized the importance of the visual but also that of haptic perception. His thought was strongly based on “building up an image by choosing a viewpoint.”<sup>12</sup> The experience of the material world is in this way constructed with the conjoined action of the body and the framed viewpoint. Tassarolo adds: “[...] Art can derive only from artistic dynamics. It does not begin with the finished artistic product. When speaking of creativity in architecture, Richard Sennett, too, observes that the diverse cultures allow one to bear in mind the materially elaborated cultural model.”<sup>13</sup> We could say that the “materially elaborated cultural model” observed by Sennett was not part of Warburg’s operative approach to his classification of images. In omitting the “experience of the material world,” Warburg avoids a constituent dimension of cultural production.

This is because Warburg’s “field” is represented by the ecology of images that constituted the published cultural response of his age to the classical world. In constituting his field in this way, Warburg was able to use contemporaneous representations as a means of exploring his own cultural context. Warburg’s investigation is thus less a reflection on the classical than an interrogation of the values of his own age as they are reflected through the representation of the classical. Yet, the dissociation of representation and referent prevents Warburg from establishing a clear point of differentiation between the classical and contemporary frames within which he is ultimately working.

Warburg’s Atlas was constructed at the beginning of photographic culture. Warburg himself had seen within his own lifetime the ascent of imagery as both a commercial and a pedagogic tool. As a result, he had witnessed a significant epistemological transformation that had seen classical fieldwork largely replaced by photographic research, especially among younger researchers, including Sigfried Kraacauer (1889-1966), Adolf Behne (1885-1948), and Paul Frankl (1878-1962), all of whose early work relied heavily on photographic evidence and proof.<sup>14</sup> The rise of photography – and ultimately film – would exacerbate the mind/body duality emphasized in seventeenth and eighteenth-century Western thought, replacing the abstractions of cognition with those of representation. This fissure fueled a phenomenological response, which emphasizes embodied experience.

Today, much of architectural theory and history is dependent on photographic evidence, which is advanced as proof, in itself. The work of many theorists and historians, like that of Beatriz Colomina, has shifted to an interest in images – their production, manipulation, and repetition, and how each has influenced and continues to influence architectural production. Images infuse the pedagogy of architecture.

In opposition to a fieldwork focused on images and representation, fieldwork has been historically defined in terms of physical commitment to a specific material context. Direct experience with embodied and situated objects, artifacts, and contexts frames the potential fieldwork exploration through interaction and the expanded sensorial field. Embodied fieldwork that is engaged with the object of observation or action not only includes proprioceptive response that is limited or lacking in off-site research, but also engages the material continuum of the site more directly.<sup>15</sup> Situated experience involves a process of counter-balancing that invokes forms of analysis uncommon in studies that do not physically engage with the object of study. Embodied fieldwork implies the possibility of expanding an inquiry beyond intellectual interrogations by means of physical experience.<sup>16</sup>

10 Jorge Otero-Pailos writes: “By the early twentieth century, phenomenologists had called into question the strict separation between subject and object presupposed by French positivism. José Ortega y Gasset (1883-1955), a Spanish student of Heidegger, advanced lectures on Galileo Galilei (1564-1642). He argued that facts acquire meaning only in relation to life projects. ‘Reality is not a fact, something given, gifted – rather it is a construction that man makes with the given material.’” Jorge Otero-Pailos, op. cit, 3. Otero-Pailos cites: José Ortega y Gasset, *En torno a Galileo* (José Luis Abellán, ed.) (Madrid: Espasa Calpe, 1996), 50.

11 Simmel, Georg: *The Face and the Portrait*. Cited as *Il Volto e il Ritratto* (Bologna: Il Mulino, 1985) in Mariselda Tassarolo, “The Last Touch Turns the Artist into a User: The Body, the Mind and the Social Aspect of Art,” *Aesthetics and the Embodied Mind: Beyond Art Theory and the Cartesian Mind-Body Dichotomy* (Alfonsina Scarinzi, ed.) (London: Springer, 2015), 146-147.

12 Mariselda Tassarolo, op. cit.

13 Tassarolo states that in the mental elaboration of prototypical models, “a constant relationship can be seen between assimilation and adjustment. The subject’s activity is tied only to assimilation, and the image depends on adjustment; the connection with imitation would merely serve to qualify it as a copy. Imitation occurs when adjustment does not follow assimilation and produces the image. [...] assimilation schemes enable one to embody the objects of one’s activity, even if no assimilation schemes exist because each scheme is the result of assimilation. The enjoyment of an object of art does itself produce adjustment because it shifts attention onto aspects of reality on which only the creative eye is able to dwell, presenting afresh the same reality that is under everybody’s eyes.” Tassarolo, Mariselda: Op. Cit. The reference from Sennett is taken from: Sennett, Richard: *The Craftsman* (New Haven/London: Yale University Press, 2008).

14 See: Claire Zimmerman, *Photographic Architecture In the Twentieth Century* (Minneapolis/London: University of Minnesota Press, 2014), 26-40.

15 David Leatherbarrow emphasizes the objective qualities of any fieldwork, as “attentive surveying results in descriptions that can be verified.” The author adds: “Survey work and design differ insofar as the former derives from an awareness of the city and the latter expresses responsibility for the building.” David Leatherbarrow, op. cit. 72.

16 Incorporation also brings in embodiment, in the sense of the body’s experience as a measure and research tool in experiencing site. Here we can refer to precedents in the works of Pallasmaa, Zumthor, Pérez-Gómez, Leatherbarrow, and others.

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- 17 From the course syllabus.
- 18 "Insofar as the aim is to catch what is particular to a place, a significant degree of objectivity is intended, retaining key aspects of what presents itself as itself, or is proper to the location. [...] The task is not to *reproduce* but to *reduce*, to see more by focusing on less: namely, those aspects of a place that are pertinent to the project [...] projects begin with precisely this discovery, which can also be called an invention. [...] One can say surveys are architecture's first fictions." David Leatherbarrow, "Street Fiction or, Philadelphia Stories," *Journal of Architectural Education* Vol. 75 No. 2 (2021): 225.
- 19 David Leatherbarrow points out that "Ernesto Nathan Rogers also invoked investigative eyes, hands, and 'nose' in his approach to *preesistenza ambientale*." David Leatherbarrow, op. cit.: 224. Leatherbarrow is quoting Ernesto Nathan Rogers, "Preexisting Conditions and Issues of Contemporary Building Practice" (1955), in: Joan Ockman (ed.), *Architecture Culture 1943-1968* (New York: Rizzoli, 1993), 200-204.
- 20 Leatherbarrow states how "each of us has the capacity to notice something that others have overlooked, something that may have unexpected significance. All that's required is the exercise of an inborn faculty." Leatherbarrow cites Christopher Morley: "From now until the end of my time no one else will ever see life with my eyes." Christopher Morley, "Sauntering," *Philadelphia Travels* (Philadelphia: Lippincott, 1937), 29-32. In: David Leatherbarrow, op. cit.: 228.
- 21 "Alertness was required from the scene to work its magic, also a willingness to separate the pace of movement from the time of imagining [...]" David Leatherbarrow, op. cit.: 230.
- 22 Leatherbarrow brings Morley's case: "Morley combined walking with *speculation*. [...] I think his sense of city is best described as *active passivity*, perceptual interest that combines seeking with submission. Although he speaks of cataloging and making annotation, his observations didn't intend an objective account, instead a personal impression, for one never escapes one's own vantage. Perception, like perspective, has a three-part structure: the background, the figure, and the point of view." David Leatherbarrow, op. cit.: 229.
- 23 "Matter, in our view, is an aggregate of 'images.' And by image we mean a certain existence which is more than that which the idealist calls a *representation*, but less than that which the realist calls a *thing* – an existence placed halfway between the 'thing' and the 'representation.'" Henri Bergson, *Matter and Memory* (1896) (New York: Zone Books, 1988), 9.

**Atlas Materia. Experiencing the Material City**

In the spring of 2017, a group of sixteen graduate students participated in a theory seminar as part of a research group on material experience at the Department of Architecture at the University at Buffalo. The seminar was titled "Atlas Materia. Experiencing the Material City." The seminar emphasized the corporeal experience of space through embodied, phenomenological investigations that situated students within the context of their research subject.<sup>17</sup>

Inspired by Warburg's *Mnemosyne Atlas* and Simmel and Sennett's observations, the project focused on analyzing material qualities as conveyors of place memory and identity. *Atlas Materia* considered material encounters during photographic and tactile fieldwork in the assembly of a material portrait of the city. In contrast to collections of images disengaged from site-specific exploration, such as *Mnemosyne Atlas*, the work from *Atlas Materia* was to be based on direct contact with a specific physical reality, exposing the *Atlas*' producers to a built environment from which they could extract data in order to produce their own interpretations. Equally significant and distinct was the collective nature of the fieldwork portraiture, born from what might be called a collective intuition.

The seminar gave the students an opportunity to explore the material condition of the city of Buffalo, New York, through a simultaneously physical and intellectual approach that emphasized objective and subjective exploratory methodologies.<sup>18</sup> The hand, the eye, and the camera became tools to capture their observations on the material character of the city's identity.<sup>19</sup> Through the conjoined actions of physical and emotional sensing, the seminar enhanced the students' experience of the city's built environment through a focused survey of material dualities such as hard/soft, old/new, organic/inorganic, permanent/temporary, colored/uncolored, and moving/still, among others. The fieldwork investigated the architectural experience that takes place when matter and the senses coalesce in the urban environment. The connection between the physical space of the city and its interpretation was at the core of the research.<sup>20</sup>

The learning experience was determined through immersion in a culture of fieldwork exploration. The photographic compilation required the students to be attentive and inventive, pursuing a simultaneously objective and subjective portraiture of the site conditions.<sup>21</sup> The study called for the unexpected by exploring the tactile dimension of materials in apparently conventional scenes in the city's architecture. They were to find the unconventional and the unseen and connect them to an interpretive narrative of their own, developing critical positions around the perception of the built environment that the students would utilize to produce a particular portrait of the city.<sup>22</sup>

Henri Bergson's (1859-1941) observations on matter as an "aggregate of images" led to considering the fieldwork study an approach to reality and representation.<sup>23</sup> The objectives of the seminar were threefold. First, the on-site exploration of the physical environment led from the earlier objective mapping exercises to a subjective, physical, hands-on experience of the constructed city. Second, through this fieldwork, the students elaborated a personal representation of the material essence of different areas of the city following an inevitable subjective intuition conducive to their own experience. Third, the fieldwork was shared through social and intellectual exercises of discussion, also encompassing writing, and reading. The results aimed to improve the observational and analytical skills of the students in their urban journeys and provided a collective portrait of the perceived city.

These three objectives were developed through a multi-step analytical and synthetic process. Students explored the physical environment of the city on foot



Figure 2. Fieldwork map (partial). Student: Ashwini Karve. University at Buffalo, State University of New York.

to better understand material interaction in architectural production. The group divided a map of the city into eight large sectors, each of which was assigned to a team of two students. Eight pairs of students participated in weekly exploratory sessions, with each pair assigned to one eighth of the city's 40,384 square miles. The teams divided each sector into smaller sub-sectors following an equal grid and visited them over a series of weekends throughout the course of the semester, photographing material scenes along their walks.<sup>24</sup> The sectors had significant architectural and urban landmarks highlighted through axonometric representation, as well as the precise location of each photograph taken, thereby producing a web of dots and images assembling a visual map of the fieldwork conducted over three months.

The students generated perceptual observations on the material qualities of the city. The photographs included notes on the address and the materials depicted in the images as well as keywords that synthesized their very own thoughts on what was being observed and experienced. Each image was required to capture a material situation photographed from a frontal position between one and three feet away from the material scene that was to be portrayed. At the same time, all images would be displayed in a square format to emphasize the abstraction and the lack of directionality of the photographer's frontal position. These restrictions of viewpoint and scale were meant to exclude any contextual information so that the photograph focused solely on the material qualities. As a result, the visual compositions were to emphasize material adjacencies, accidents, and joineries.<sup>25</sup> These parameters ensured an effective framework for visual comparison and collective cataloging (figure 2).

24 "Morley's studies were neither steadied nor set up this way. Perception was peripatetic. [...] To be productive, the stroll had to be unhurried, its passage, uncharted, and progress uninterrupted. [...] Morley's ambulant observer confessed a weakness for 'the everlasting lure of round-the-corner.'" Christopher Morley, op. cit., 10. In: David Leatherbarrow, op. cit.: 229.

25 All photographs were accompanied by a brief description of 15-30 words and three to five keywords. The photographs taken by each student covered one sector, which equaled five photographs per sub-sector for a total of 30 images. Each team of two produced 60 photographs of the same sector, which revealed overlaps, promoted discussion, and expanded viewpoints. The intention behind this fieldwork structure was to guarantee a proper distribution of photographs within the assigned area. The students were to take a larger number of photographs to choose from, creating a pool of images from which to select the final 30.

The photographic exploration of the city led to a collection of visual documents that reflected the students' experience of the city's material composition. As a result of this process, the students discovered revealing material conditions reflected in the sequence constructed through their visual exploration. Throughout their fieldwork, the students committed to their built environment by means of interaction and reciprocity, relating to Simmel's *Wechselwirkung*. The group sought unexpected material adjacencies and conditions revealing the specific character proposed by the overlaps of brick walls, mortar surfaces, wood slats, metal sheets, plastic shingles, glass panes, asphalt driveways, and invasive vegetation.

The final document included the maps of each sector and eight short essays about the images from each pair of students. This compilation revealed interpretations, assumptions, and initiatives from the students' perspective. The identity of each district was depicted through each snapshot. Only thirty images per photographer would make the final selection, so each sector was to be portrayed a total of sixty images. In the end, the group chose 480 out of the few thousand photographs taken during the three-month fieldwork. The selection



Figure 3 .Fieldwork studies. Student: Lemma Al-Ghanem. University at Buffalo, State University of New York.

process was led by each student following discussion in the classroom with the faculty and their peers (figure 3).

The students' visual, written, and spoken reflection evolved through iterative sequences of action, perception, and reflection – sauntering, observing, selecting. This helped the students learn that there is no such thing as a single response in the study of the material environment, with problems having multiple answers. They were encouraged to develop an approach that was both disciplinary – they followed certain objective restrictions and rules, and serendipitous – there was ample room for individual subjective creativity within the externally imposed structure. Photography was in this case an exercise of active rather than passive looking intended to encourage a proactive, analytical, curious attitude in the exploration of material identity. In this sense, the self-reflection that emerged through each student's visual and material exploration became particularly significant, as it imbued the individual and collective learning process with personal reflection ignited through their individual observations. Through the photographic process, the students were to develop specific narratives that they assembled as themes.

The students practiced different approaches to the act of seeing in personal ways through their fieldwork expeditions. While one looked at the way water changed the materiality of the environment through its liquid and solid phases – in the form of ice and snow – another explored the progressive loss of surface homogeneity by paying attention to paint cracking, or photographed the disjuncting of assembled pieces that slowly lost their original arrangement. One student wrote, “What happens at the point at which what we have forgotten and hidden away is rediscovered by nature? That which was overlooked and has disappeared throughout history is overgrown with nature. Even that which we try to preserve is inevitably found and changed by nature. Cracked edges, fractured forms, splintering material: all evidence of nature's reclaim of material and space. But is this simply a decay of material, or actually the rebirth of a new material?” These narratives arose from the field exploration rather than as an *a priori* condition. The fieldwork became a collective opportunity for measuring and contrasting results, and registering significant conclusions that merged the physical and the visual through interaction and reciprocity between each student and the built environment they explored (figure 4).

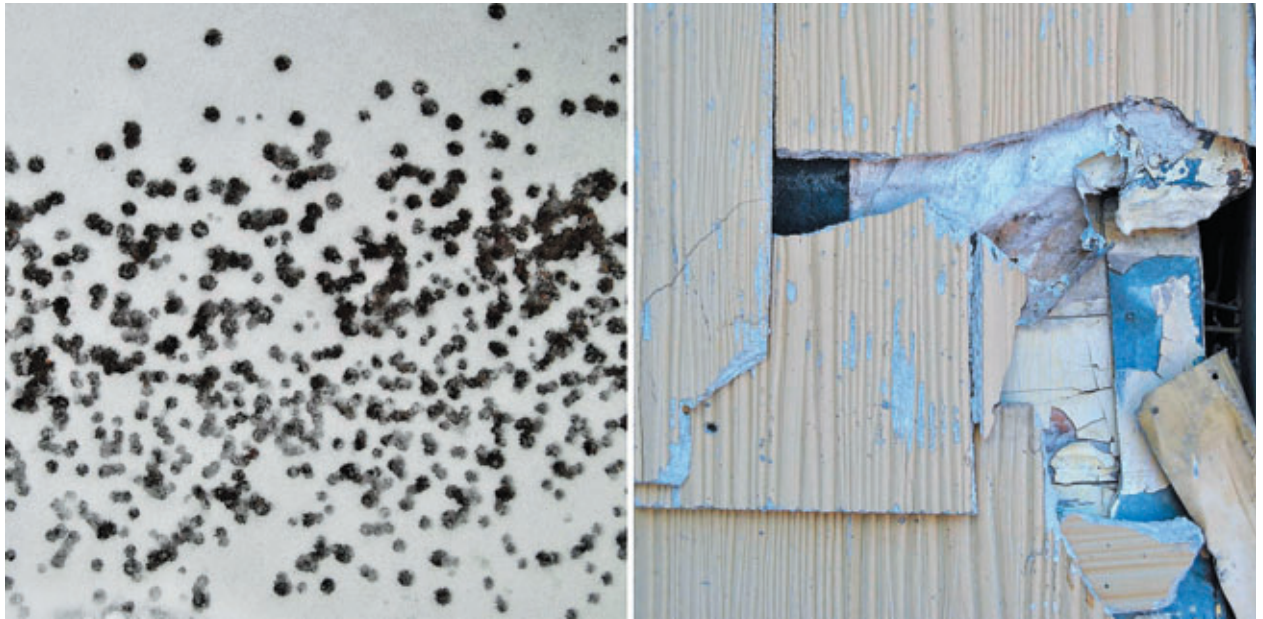


Figure 4 .Fieldwork studies. Student: Ashwini Karve. University at Buffalo, State University of New York.

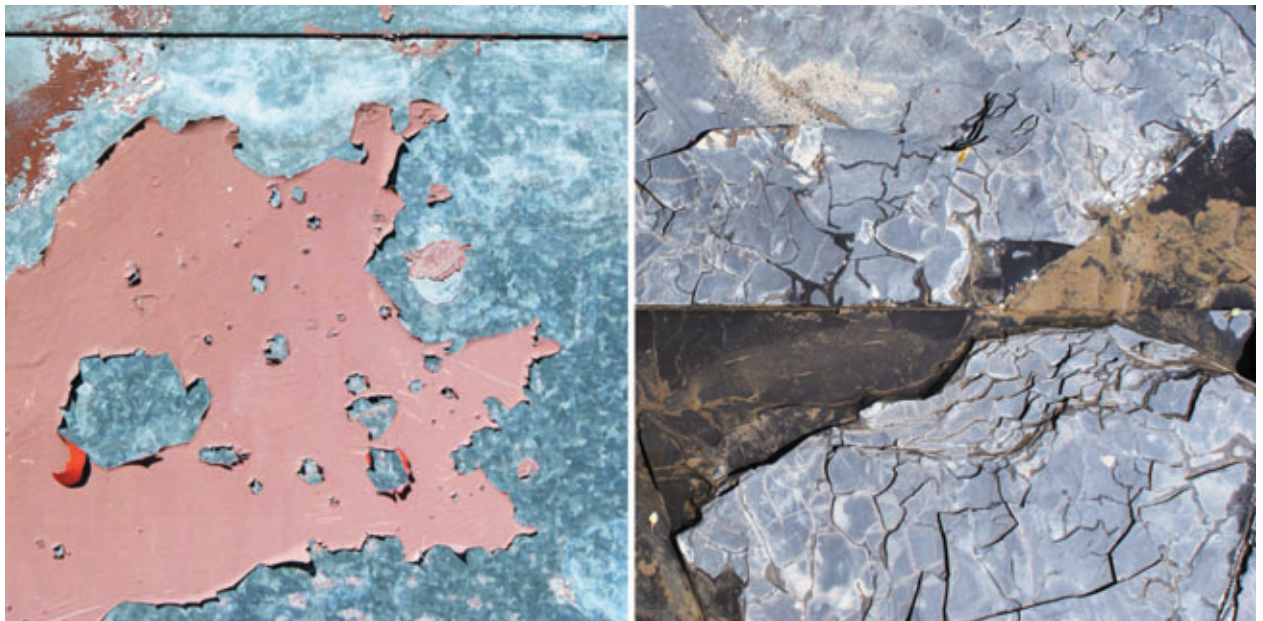


Figure 5. Fieldwork studies. Student: Kyle McMIndes. University at Buffalo, State University of New York.

In parallel to their visual explorations in the field, the students were asked to collect a number of small non-hazardous samples and objects found serendipitously during their weekly field visits – cans, papers, sticks, rubber straps, a broom, two bricks, stones, animal bones, metal scraps, etc. The objects were to be part of a *sui generis* material map of the city that was to promote further discussion and complement the photographic portrait, arranged on a large table and replicating the layout of the city. This group installation required every student's engagement giving rise to parallel and simultaneous narratives around the materiality of the pieces the students collected. The result was a mapping of the students' physical findings, a set of collective intuitions and a mutually agreed upon vetting process. This map of objects echoed the fieldwork that had been the students' research site for weeks. Its ephemerality – the installation was put together on the last day of the semester and lasted only a few hours – spoke to the temporal tensions reflected in



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the images. The arrangement of artifacts referred to each item's location as found in the city and emphasized – at that moment in the classroom – a physical ethos that emerged from the many walks the students took in their fieldwork (figure 5).

### Conclusions: Visualizing the Material, Materializing the Visual

The seminar “*Atlas Materia: Experiencing the Material City*” offered a group of students the opportunity to create a representation of the material identity of the city through field research sessions. The material experience of the built environment presented an opportunity that facilitated perceptual processes and a sensory portrait of the city's material condition. The haptic intimacy of material scenes enabled a counterpoint to the virtual predominance of today's architectural education. The research involved a corporeal and tactile interpretation of the environment's material qualities, leading to considerations of decay or change, (figure 6) or the constant negotiations between artificial and natural conditions (figure 7). Inspired by the theoretical framework



Figure 6. Erosion study. Student: Blake Kane. University at Buffalo, State University of New York.



Figure 7. Water study. Student: Veronica Yuqui. University at Buffalo, State University of New York.



Figure 8. Object map installation process.  
Photo Miguel Guitart



Figure 9. Object map installation. Photo Miguel Guitart

proposed by Aby Warburg, Georg Simmel, and Richard Sennett, and observations by Henri Bergson and David Leatherbarrow, the exploratory methodology facilitated the integration of objective and subjective methodologies into the critical perception and interpretation of the physical space of the city.

The students reconsidered the city in terms of material identity and individual and collective perception. The fieldwork involved processes through which students opened their eyes and touched with their hands, constructing individual narratives. The methods involved stages of inquiry, insight, and impression, combining photographic exploration and the collection of objects with intense reading and written analysis.<sup>26</sup> The aim was not merely to document the material legacy of the city, but to instigate inquiry using the city as a field of sensory information whose exploration involved objective and subjective strategies. Through their active participation, the students connected the external material field, the selection of visual sources, and their individual interpretations of the built environment to forge new interpretative narratives.

The research *Atlas Materia* facilitated a composite understanding of the city's material qualities and the palimpsest of its identity. The exploration that this material identity poses for the future of the city incorporates a multi-faceted physical and intellectual approach to the built condition; a distinct individual and collective approach to

26 We could define *inquiry* as the process of asking and exploring questions; *insight* as the product of that process; and *impression*, or the representation of those activities, as the translation of a curated set of insights into specific images. These terms are borrowed from the research article "Curious Methods," by Karen Lutsky and Sean Burkholder, published in *Places Journal* in May 2017. <https://placesjournal.org/article/curious-methods/> (accessed April 2021).

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its material identity, and the material landscapes of the city. While the students sought to extract the more permanent qualities of these material landscapes, they also framed positions about the ways the qualities could be re-choreographed in a cultural process, much as Aby Warburg did with his *Mnemosyne Atlas* in the late 1920s (figure 8) (figure 9).

Having returned from the outside world where they carried out their photographic and object-finding work, the seminar discussions provoked additional questions and extended the sequence of inquiry.<sup>27</sup> The study succeeded by encouraging students to find new ways to think about matter and perception in surrounding environments. The ultimate objective of the *Atlas Materia* project was to contribute to making a link between a phenomenology of perception and urban spaces through a material-centered project. In making this link, the exploration promoted additional strategies for personal intuition and unexpected ways of seeing and perceiving the haptic qualities of the surrounding city. In the process, students exercised a continuous interpretation via their individual fieldwork exploration and observation, which shaped their decisions about what to look at, what to photograph, what to collect, and ultimately how to construct their own physical and perceptual representation of the city around them. Personal narratives stemmed from the conflicting, problematic, and inspiring fieldwork from which they derived questions, came to conclusions, and approached the material city through objective and subjective, intellectual and sensory ways.

The research of *Atlas Materia* thus represents an extension of Warburg's *Mnemosyne Atlas*, one that at once references pre-photographic fieldwork traditions in architectural education, while also positing a future pedagogical method that combines digital, representational, and phenomenological techniques to impart broader understanding to students. As online content, VR (Virtual Reality) and AR (Augmented Reality) result in an increasingly image saturated cultural context that is progressively divorced from embodied experience, *Atlas Materia* re-instantiates the importance of fieldwork and experience in architectural education and practice. Following the observations of Simmel and Sennett, it is a reminder that vision is only one of the senses, and that experience is a composite comprised of multiple inputs that together inform the perception and understanding of space, and thus place.

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